

Name: _____

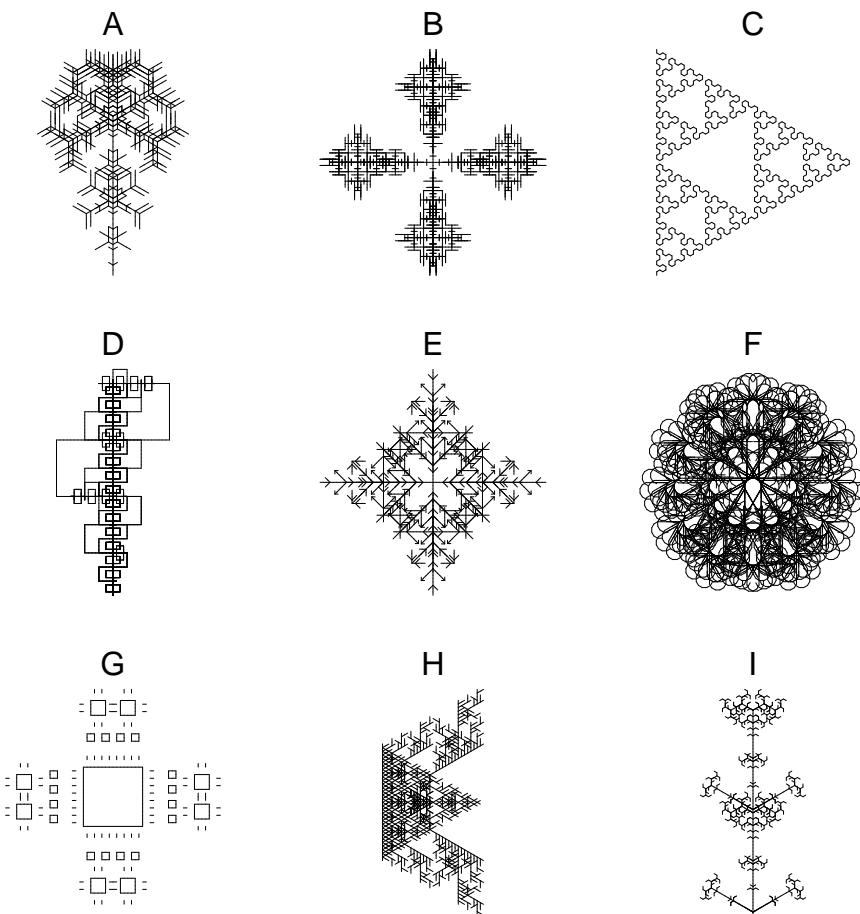
ET_1021 version 1

Consider the *L*-system (and angle) defined below:

- Start: A+++++.A
- Rules:
 - A > B+B+B+B+B+B
 - B > B[-CCA] [+CCA]
 - C > CC
- Number of recursions (number of iterations): 5
- Angle: 30°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Consider the *L*-system (and angle) defined below:

- Start: A

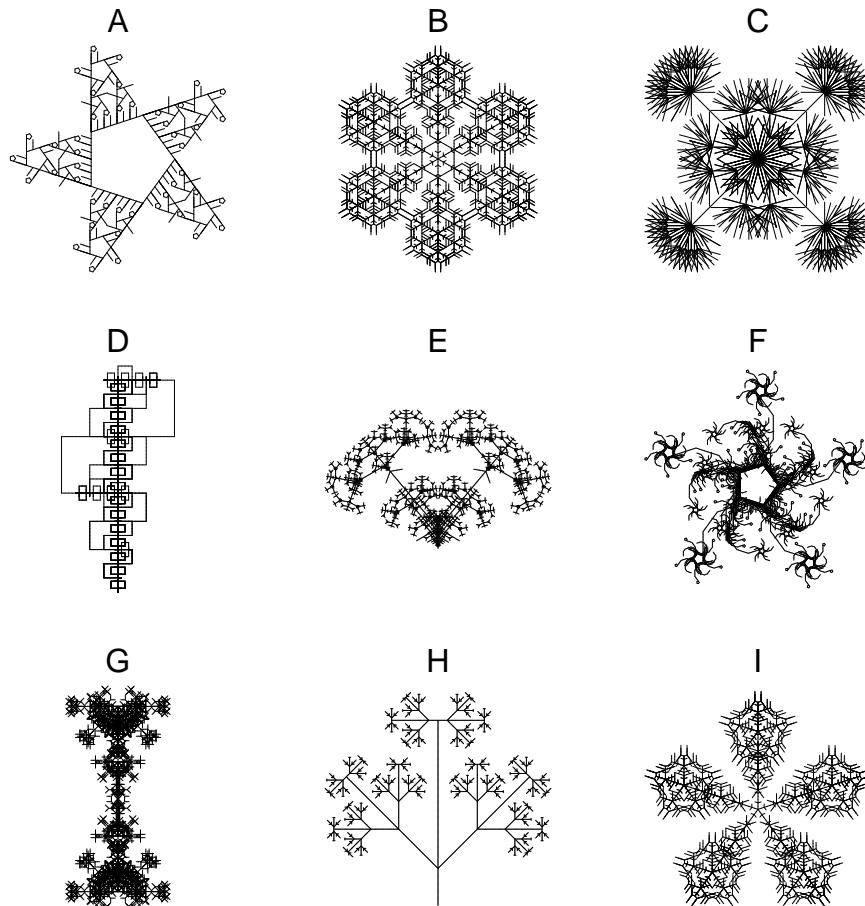
- Rules:

A > B++A++A++B
B > AB[A-CC-CC-CCA]BA
C > CC

- Number of recursions (number of iterations): 5
- Angle: 90°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Name: _____

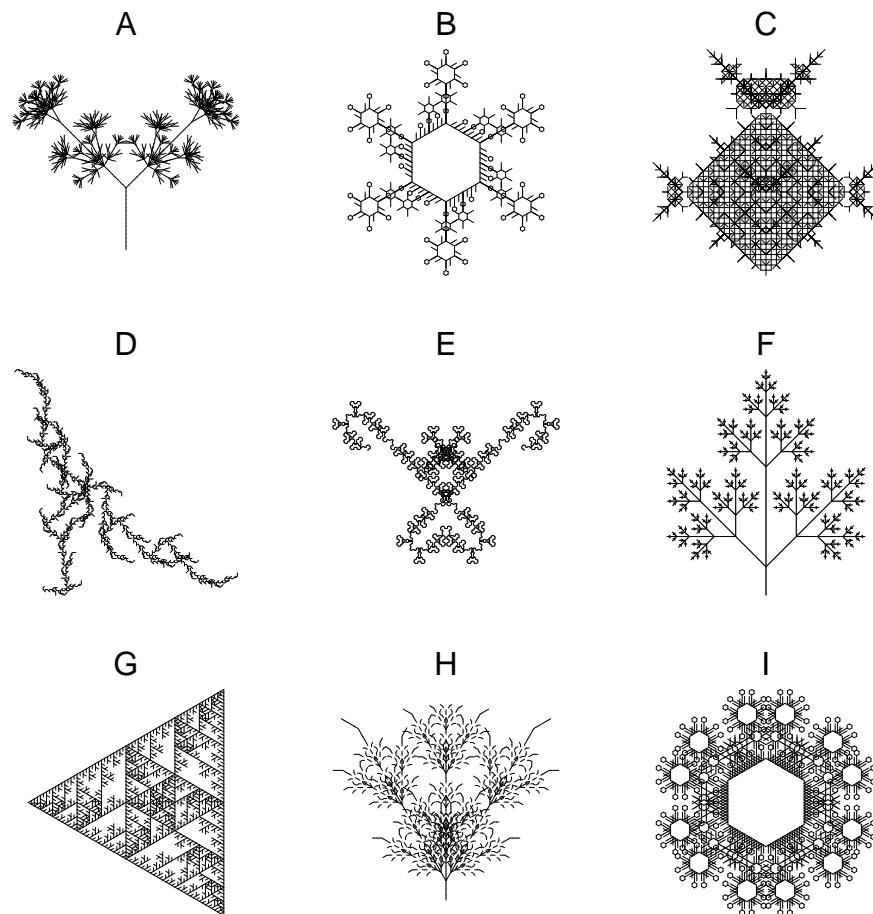
ET_1021 version 2

Consider the *L*-system (and angle) defined below:

- Start: A
- Rules:
 $A > C[+CA][CCCA][-CA]$
 $C > CC$
- Number of recursions (number of iterations): 6
- Angle: 45°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



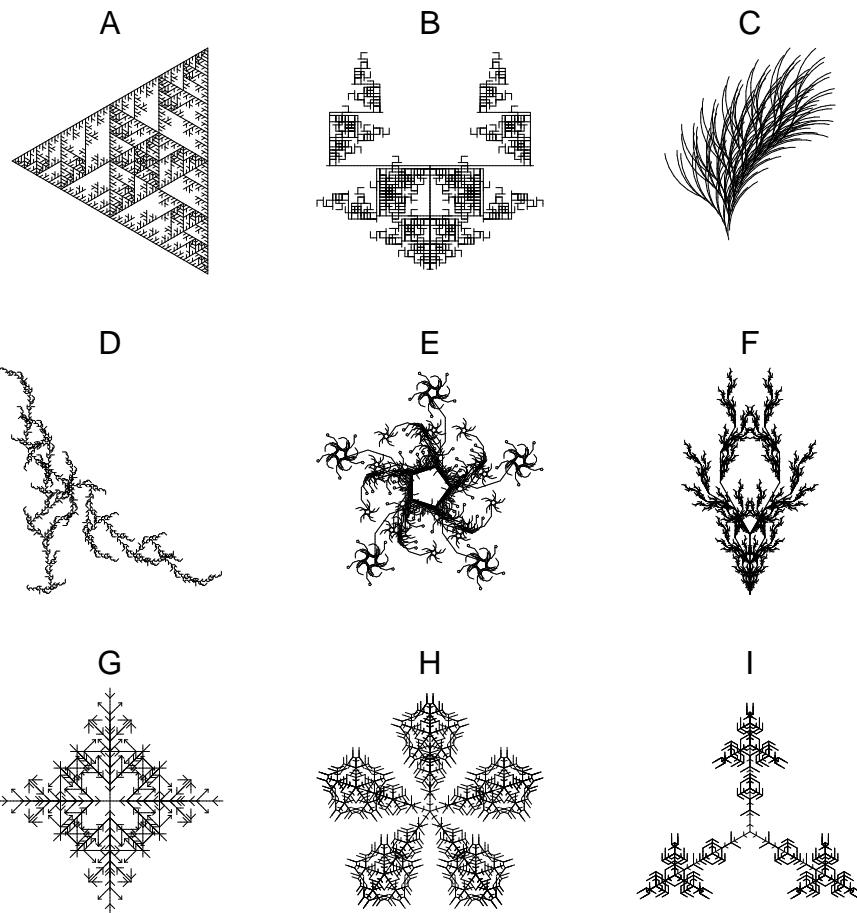
Which pattern is created?

Consider the *L*-system (and angle) defined below:

- Start: $[+A] [-B]$
- Rules:
 - A $> [-CA-CB]A$
 - B $> [+CB+CA]B$
 - C $> CC$
- Number of recursions (number of iterations): 7
- Angle: 30°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Name: _____

ET_1021 version 3

Consider the *L*-system (and angle) defined below:

- Start: [+A] [-B]

- Rules:

$$A > [-CA-CB]A$$

$$B > [+CB+CA]B$$

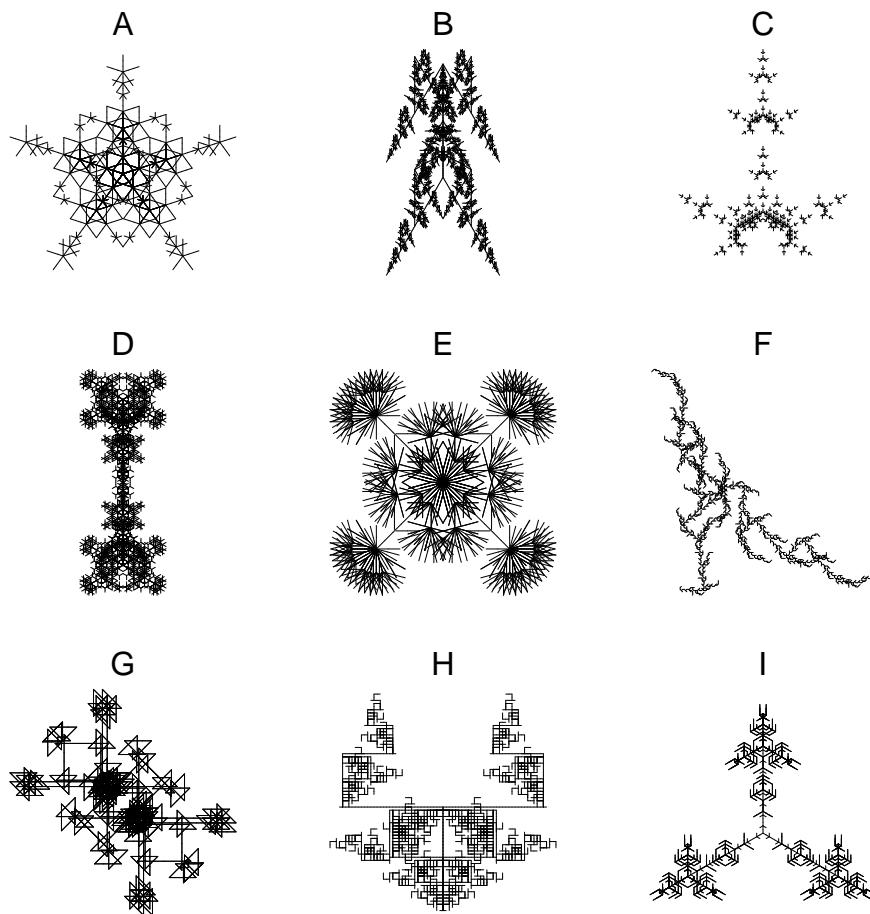
$$C > CC$$

- Number of recursions (number of iterations): 6

- Angle: 90°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



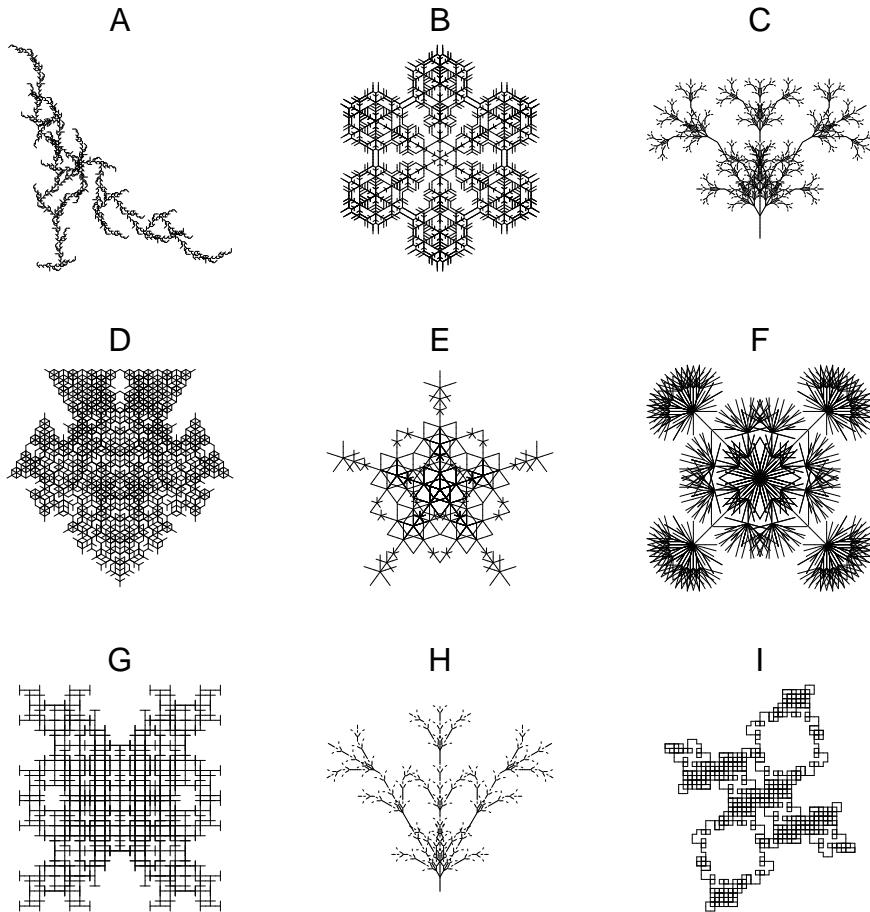
Which pattern is created?

Consider the *L*-system (and angle) defined below:

- Start: AA
- Rules:
 - A > B-AA-B
 - B > AB+B+A
- Number of recursions (number of iterations): 5
- Angle: 90°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Name: _____

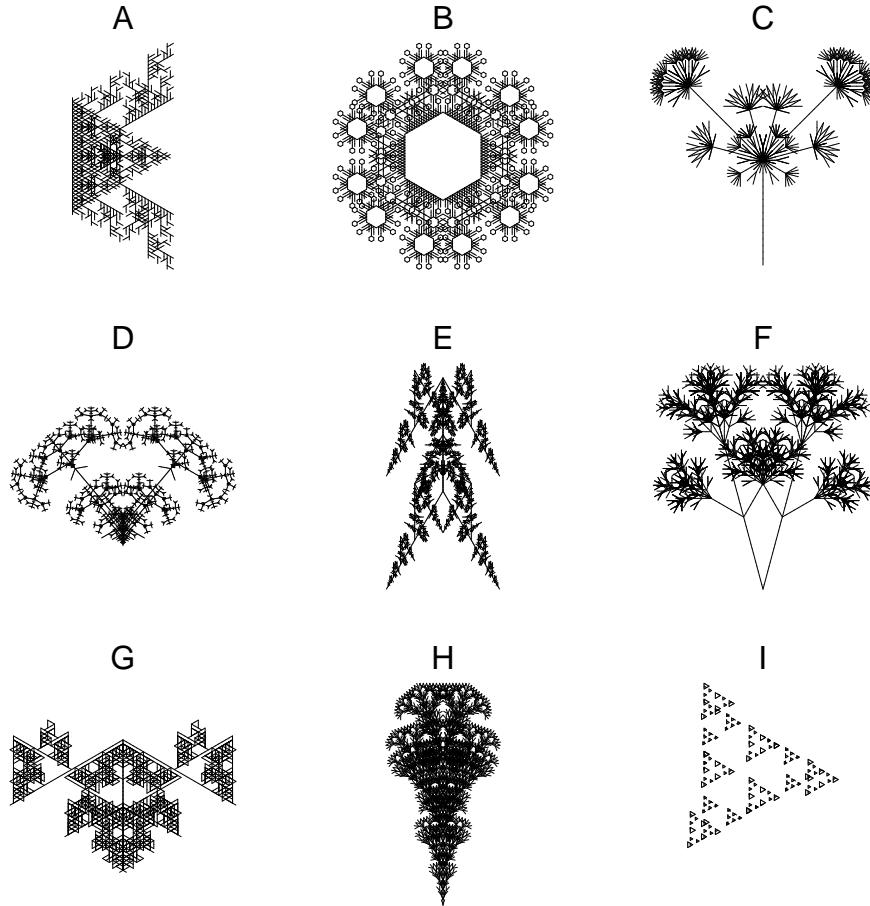
ET_1021 version 4

Consider the *L*-system (and angle) defined below:

- Start: C
- Rules:
 - A > F[---BC] [+++BC]
 - B > F[-CA] [+CA]
 - C > [-AB] [+AB]
 - F > FF
- Number of recursions (number of iterations): 6
- Angle: 15°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



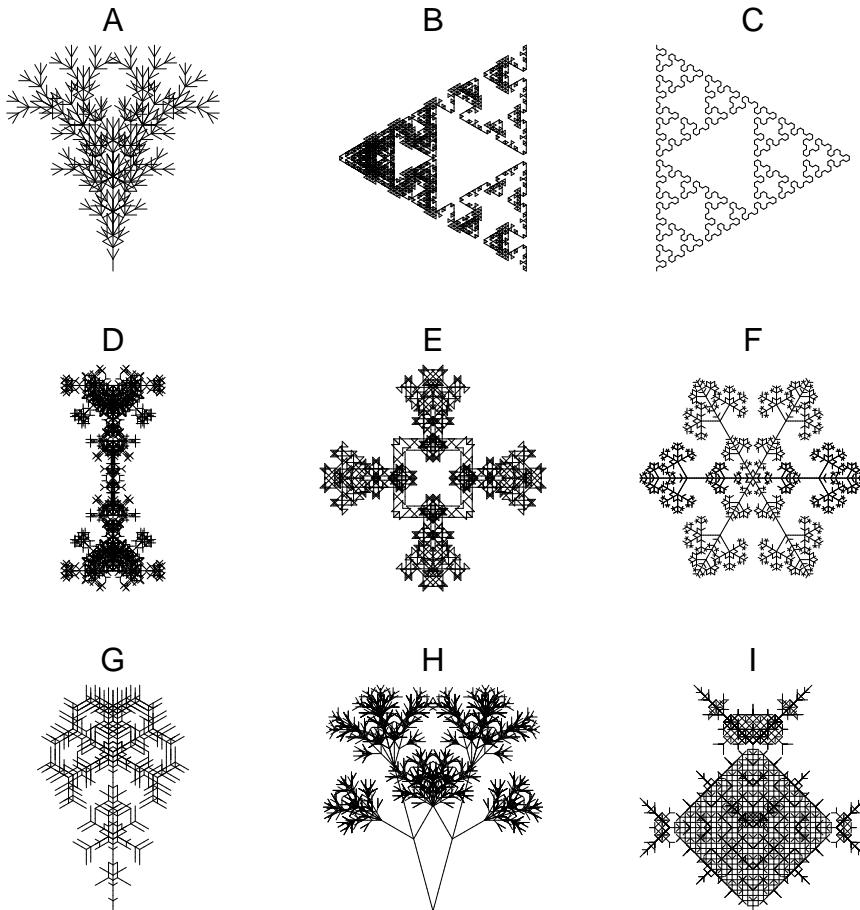
Which pattern is created?

Consider the *L*-system (and angle) defined below:

- Start: A++A++A++A
- Rules:
 - A > B-ABA-B
 - B > A+BB+A
- Number of recursions (number of iterations): 4
- Angle: 135°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Name: _____

ET_1021 version 5

Consider the *L*-system (and angle) defined below:

- Start: A

- Rules:

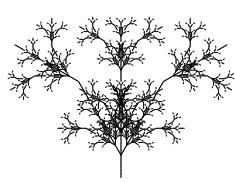
A > -B+B+B+B+B+B
B > B[--CCA] [-CCA]B
C > CC

- Number of recursions (number of iterations): 5
- Angle: 60°

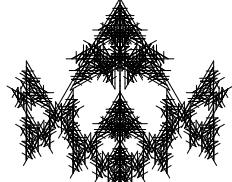
Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>

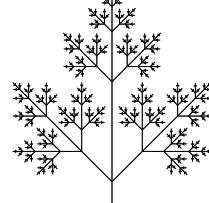
A



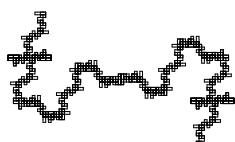
B



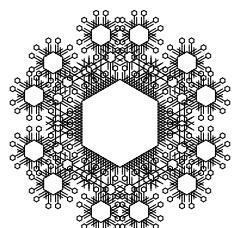
C



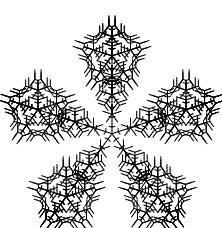
D



E



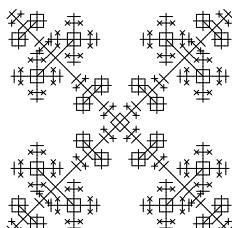
F



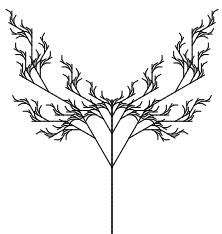
G



H



I



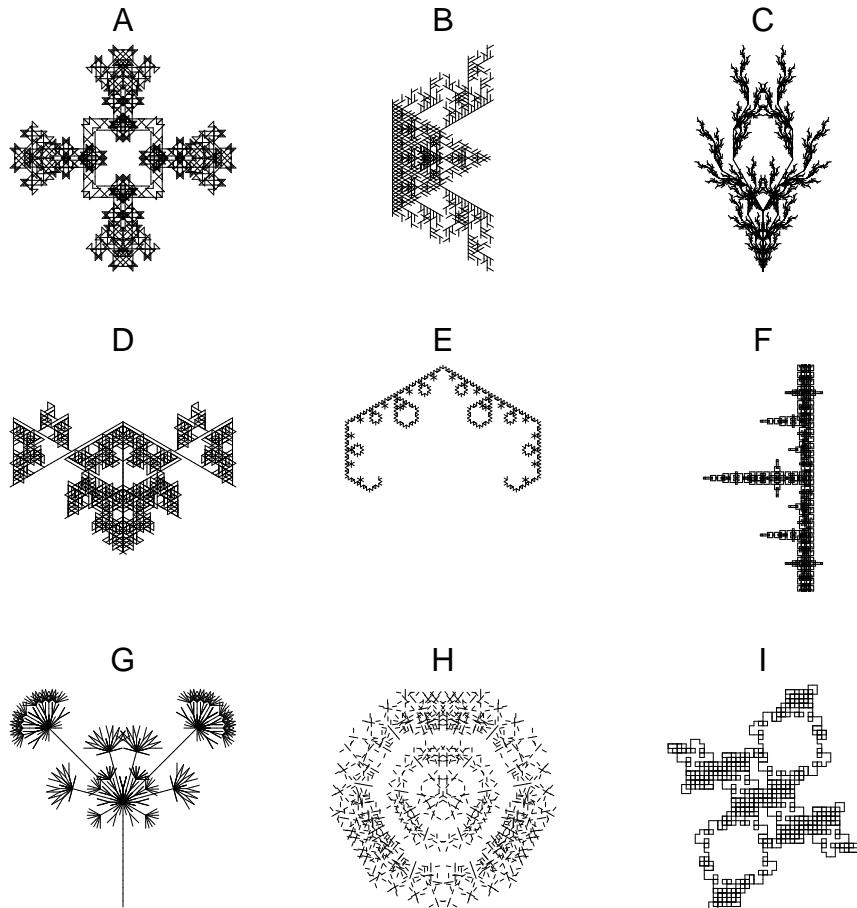
Which pattern is created?

Consider the *L*-system (and angle) defined below:

- Start: AA
- Rules:
 - A > B-AA-B
 - B > AB+B+A
- Number of recursions (number of iterations): 5
- Angle: 90°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Name: _____

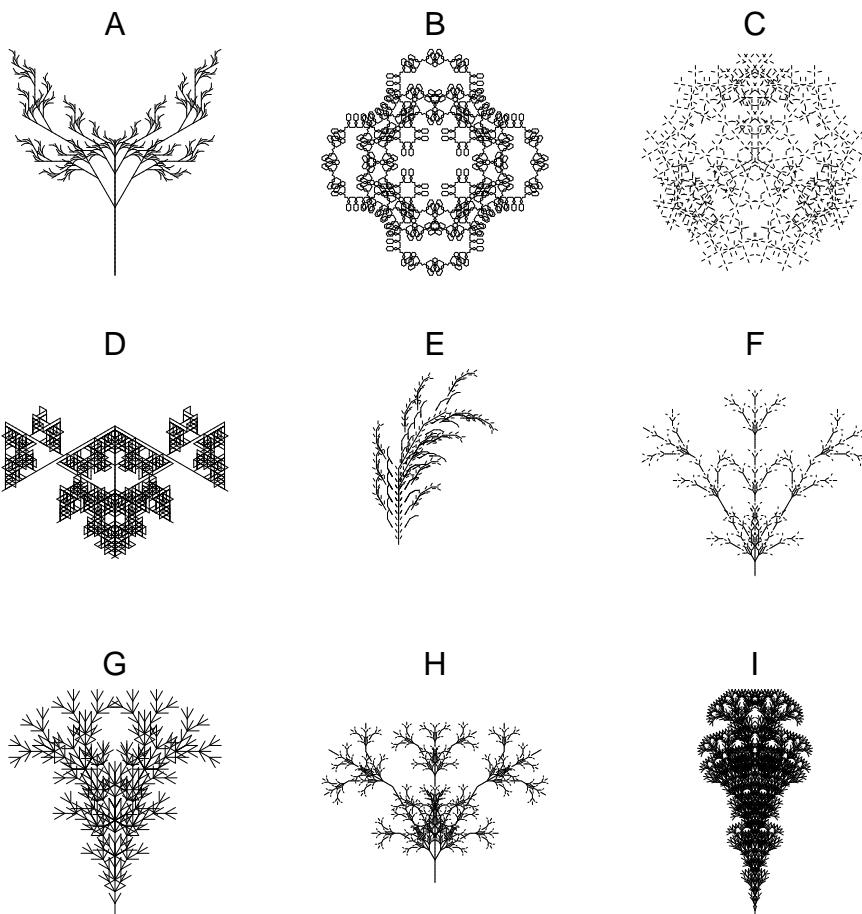
ET_1021 version 6

Consider the *L*-system (and angle) defined below:

- Start: [A]+++[A]+++[A]
- Rules:
 - A > A[---XB] [-XB] [+XB] [++XB]
 - B > XB[++XA] [--XA] XA
 - X > XX
- Number of recursions (number of iterations): 4
- Angle: 40°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Consider the *L*-system (and angle) defined below:

- Start: A

- Rules:

$$A > X[-B+BB+BB+BB+BB+BB+B]$$

$$X > XX$$

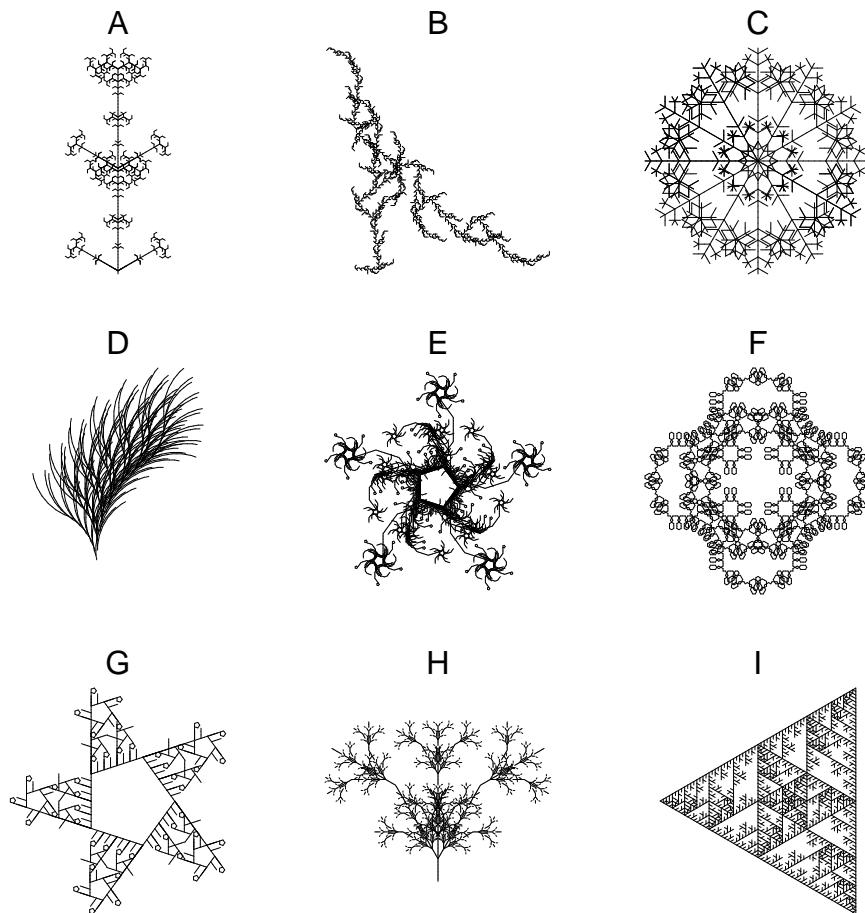
$$B > X[+A-AA-AA-AA-AA-AA-A]$$

- Number of recursions (number of iterations): 3

- Angle: 10°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Name: _____

ET_1021 version 7

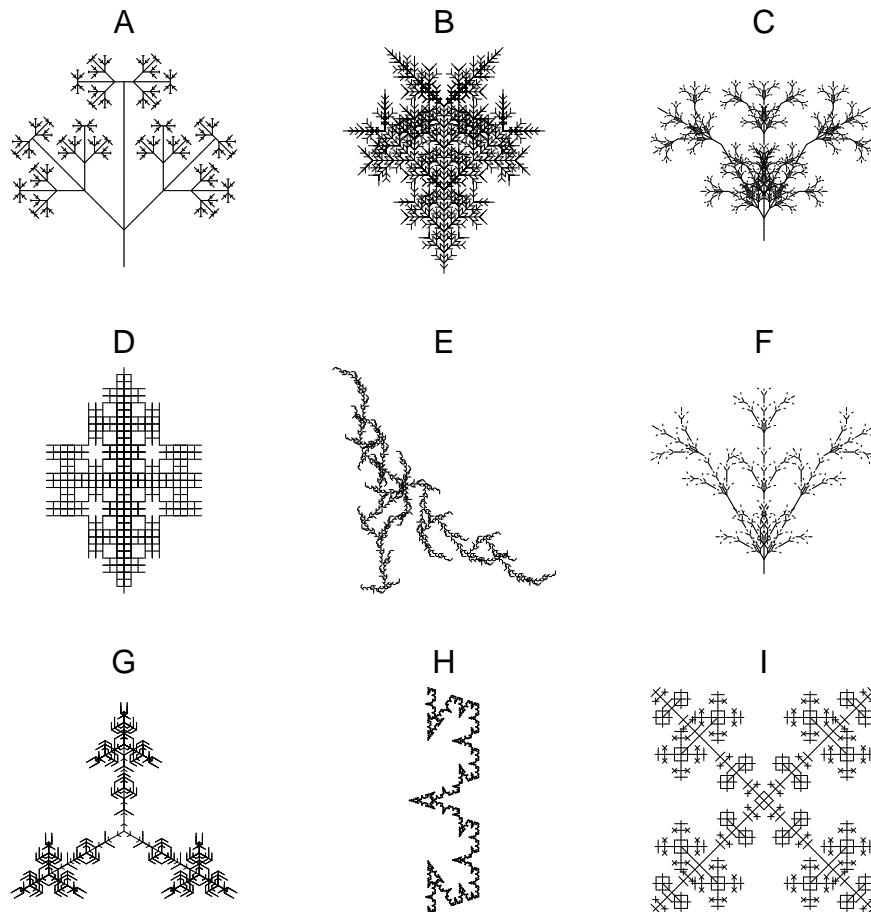
Consider the *L*-system (and angle) defined below:

- Start: A
- Rules:
 $A > B-ABA-B$
 $B > A+B+A$

- Number of recursions (number of iterations): 6
- Angle: 72°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



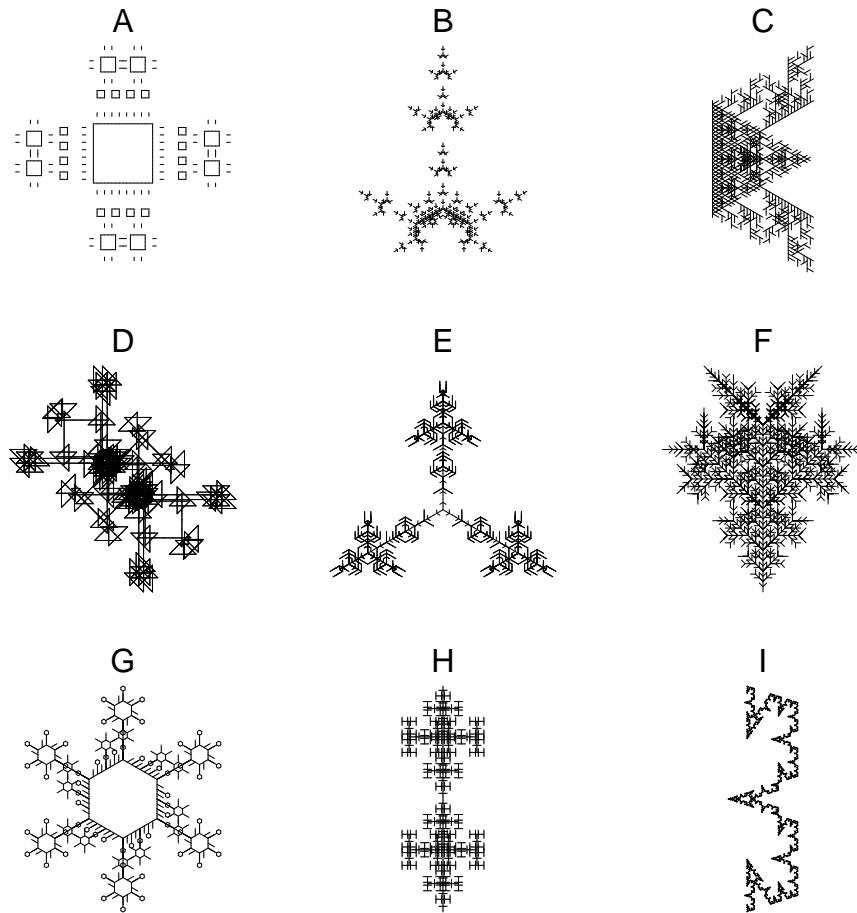
Which pattern is created?

Consider the *L*-system (and angle) defined below:

- Start: [A]+[A]+[A]
- Rules:
 - A > AA[-B][+B]B
 - B > [-ABC][+ABC]
 - C > A[-CB][+CB]
- Number of recursions (number of iterations): 4
- Angle: 120°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Name: _____

ET_1021 version 8

Consider the L-system (and angle) defined below:

- Start: A

- Rules:

$$A \rightarrow -B+B+B+B+B+B$$

$$B \rightarrow BB[-CCA]$$

$$C \rightarrow CC$$

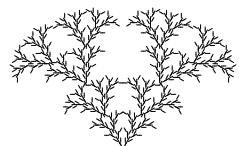
- Number of recursions (number of iterations): 5

- Angle: 60°

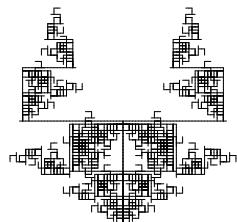
Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>

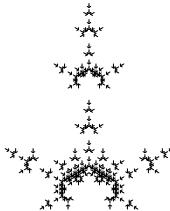
A



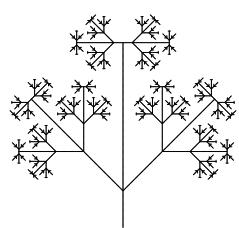
B



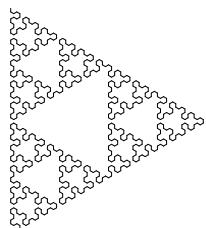
C



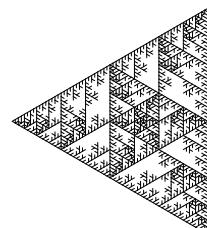
D



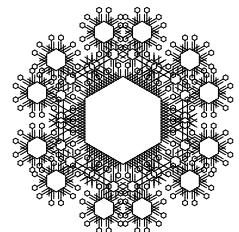
E



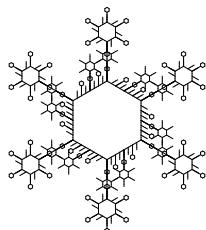
F



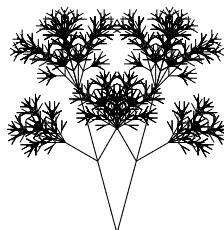
G



H



I



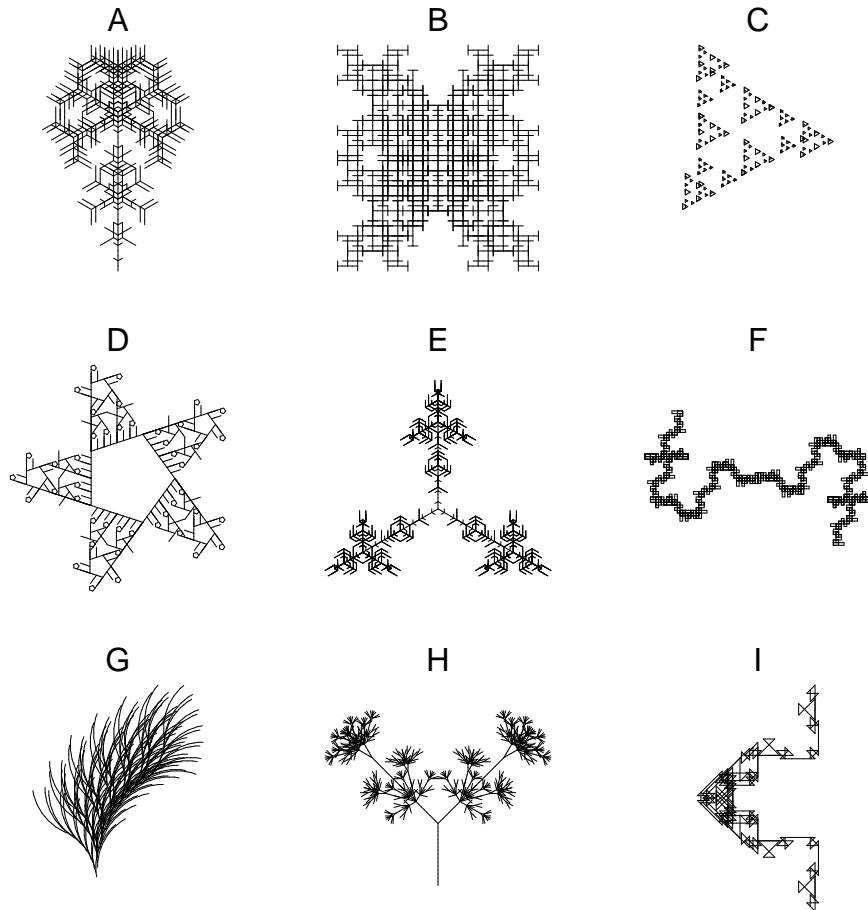
Which pattern is created?

Consider the *L*-system (and angle) defined below:

- Start: AA
- Rules:
 - A > B-AA-B
 - B > AB+B+AB
- Number of recursions (number of iterations): 5
- Angle: 90°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Name: _____

ET_1021 version 9

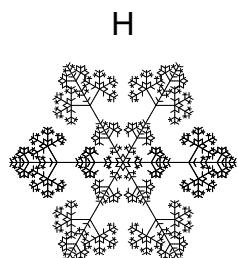
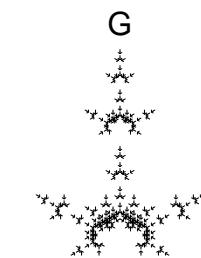
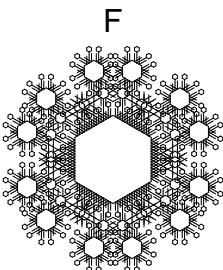
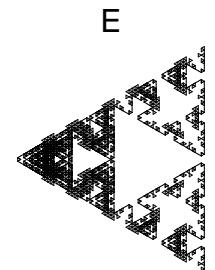
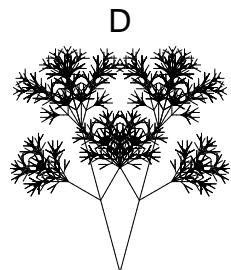
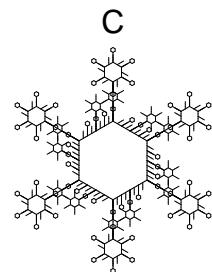
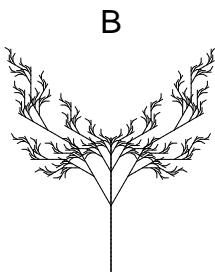
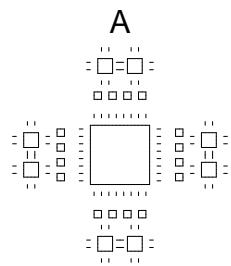
Consider the *L*-system (and angle) defined below:

- Start: A
- Rules:
 $A > B-ABA-B$
 $B > A+B+A$

- Number of recursions (number of iterations): 6
- Angle: 120°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Consider the *L*-system (and angle) defined below:

- Start: [A]+[A]+[A]+[A]+[A]+[A]

- Rules:

$$A > AA[-B][+B]B$$

$$B > [-ABC][+ABC]$$

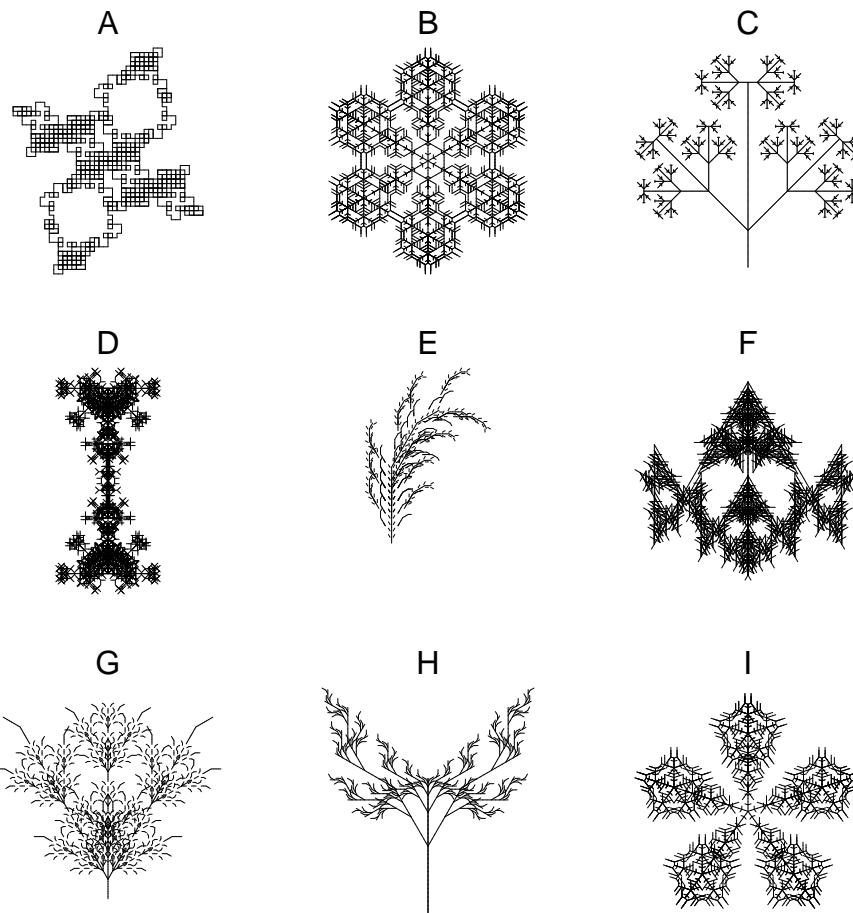
$$C > A[-CB][+CB]$$

- Number of recursions (number of iterations): 4

- Angle: 60°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Name: _____

ET_1021 version 10

Consider the *L*-system (and angle) defined below:

- Start: A

- Rules:

$$A > B++A++A++B$$

$$B > AB[A-CC-CC-CCA]BA$$

$$C > CC$$

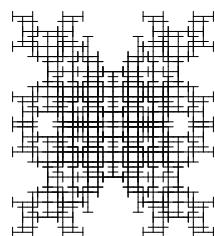
- Number of recursions (number of iterations): 5

- Angle: 90°

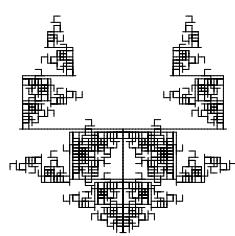
Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>

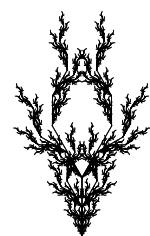
A



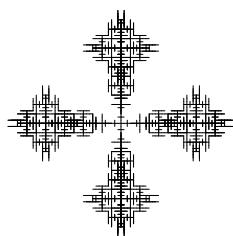
B



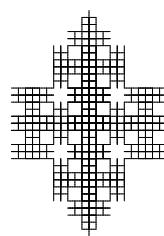
C



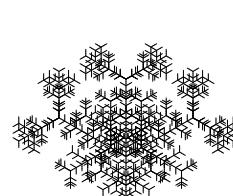
D



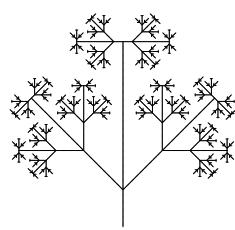
E



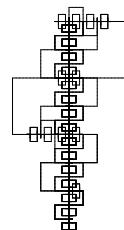
F



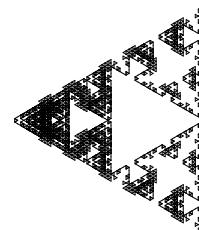
G



H



I



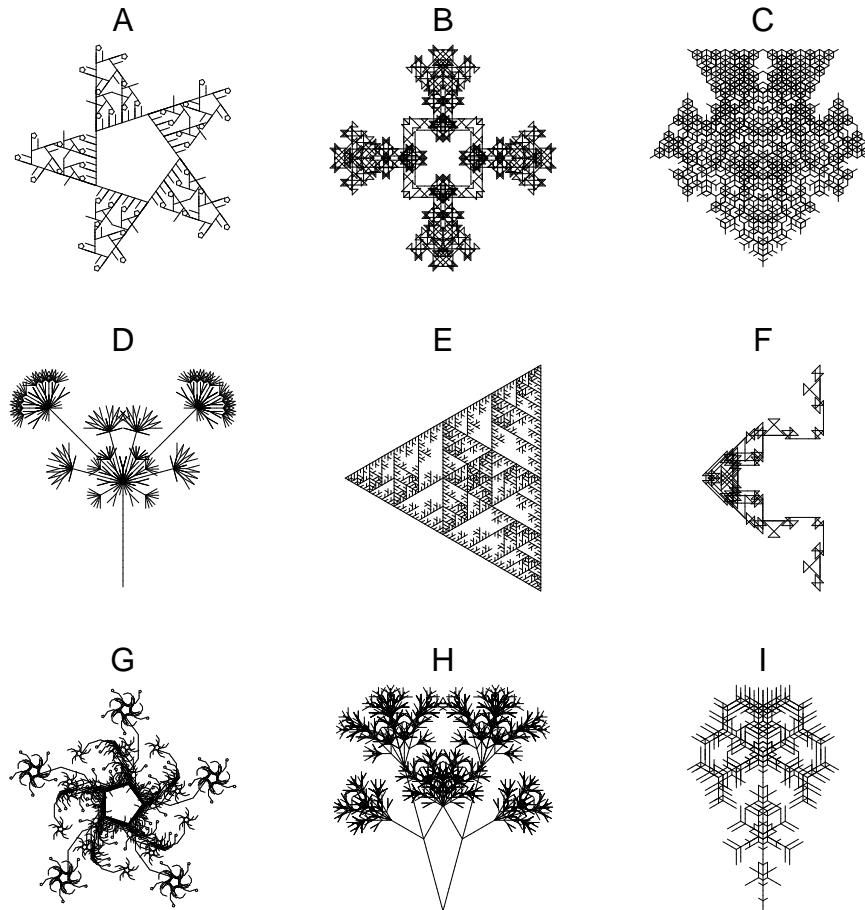
Which pattern is created?

Consider the *L*-system (and angle) defined below:

- Start: A++A++A++A
- Rules:
 - A > B-ABA-B
 - B > A+BB+A
- Number of recursions (number of iterations): 4
- Angle: 135°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Name: _____

ET_1021 version 11

Consider the *L*-system (and angle) defined below:

- Start: A

- Rules:

A > X[-A] [+A] AA

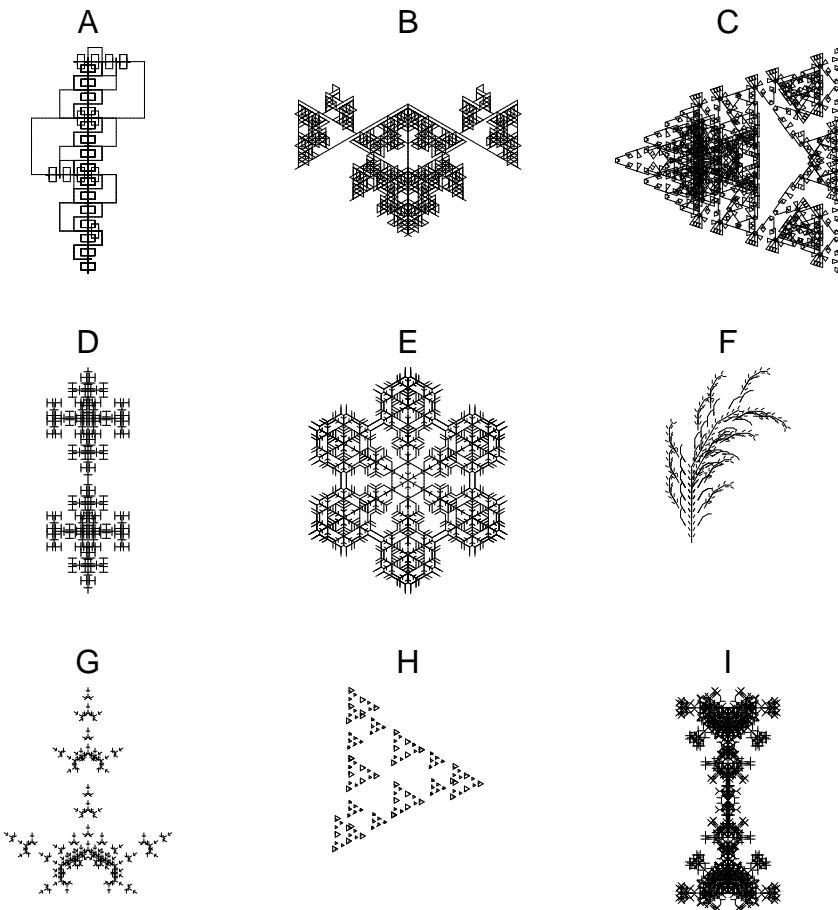
X > XX

- Number of recursions (number of iterations): 5

- Angle: 60°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



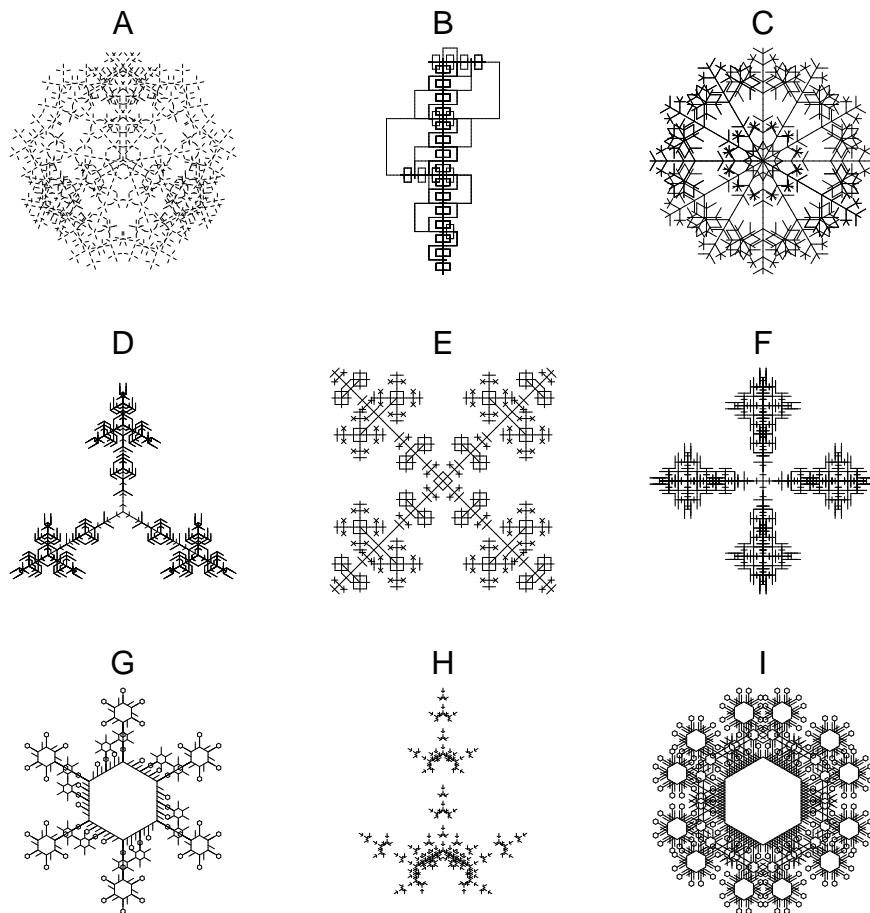
Which pattern is created?

Consider the *L*-system (and angle) defined below:

- Start: A
- Rules:
 - A > B++A++A++B
 - B > AB[A-CC-CC-CCA]BA
 - C > CC
- Number of recursions (number of iterations): 5
- Angle: 90°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Name: _____

ET_1021 version 12

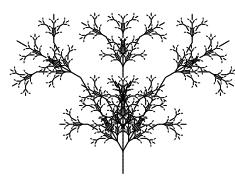
Consider the *L*-system (and angle) defined below:

- Start: A-----A
- Rules:
 - A > [---B] [-B] [+B] [++B]
 - B > BD[++DA] [--DA]B
 - D > DD
- Number of recursions (number of iterations): 5
- Angle: 30°

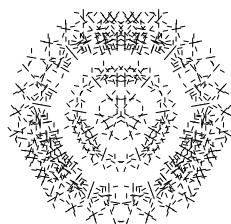
Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>

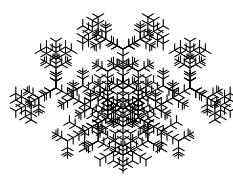
A



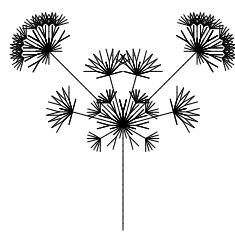
B



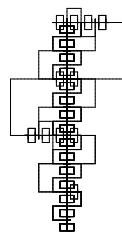
C



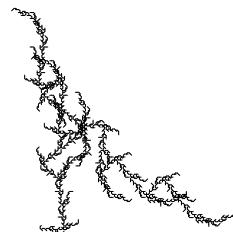
D



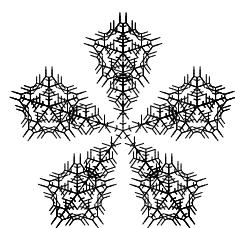
E



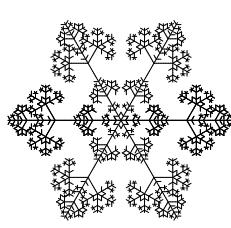
F



G



H



I



Which pattern is created?

Consider the *L*-system (and angle) defined below:

- Start: [A]+[A]+[A]+[A]+[A]+[A]

- Rules:

$$A > AA[-B][+B]B$$

$$B > [-ABC][+ABC]$$

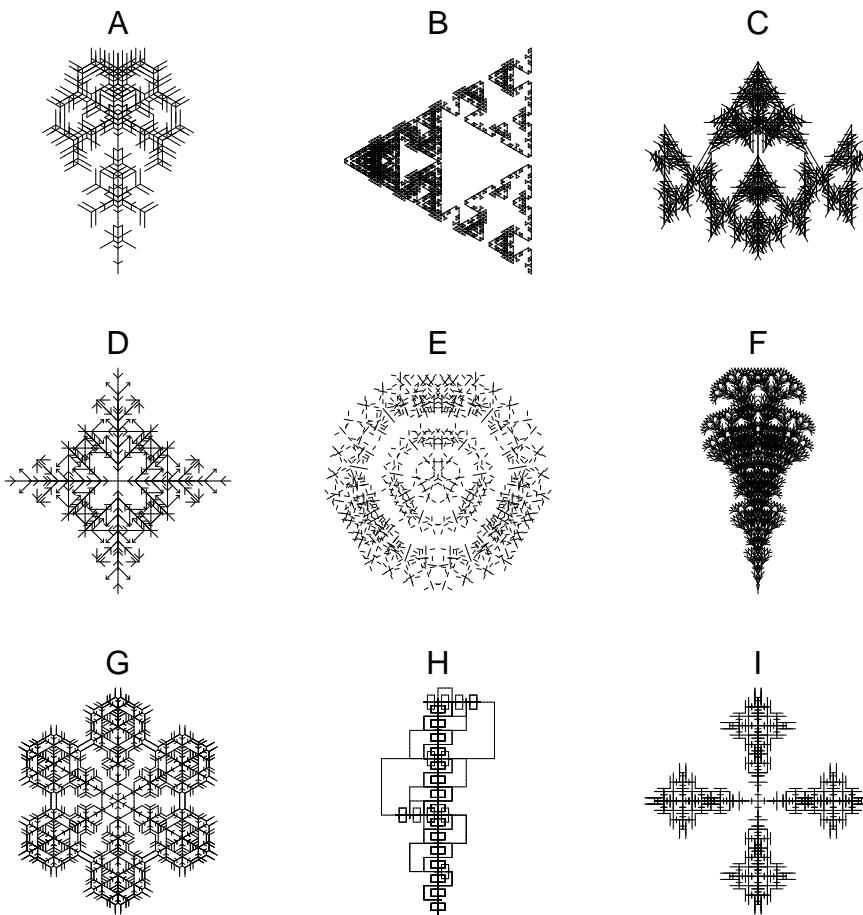
$$C > A[-CB][+CB]$$

- Number of recursions (number of iterations): 4

- Angle: 60°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Name: _____

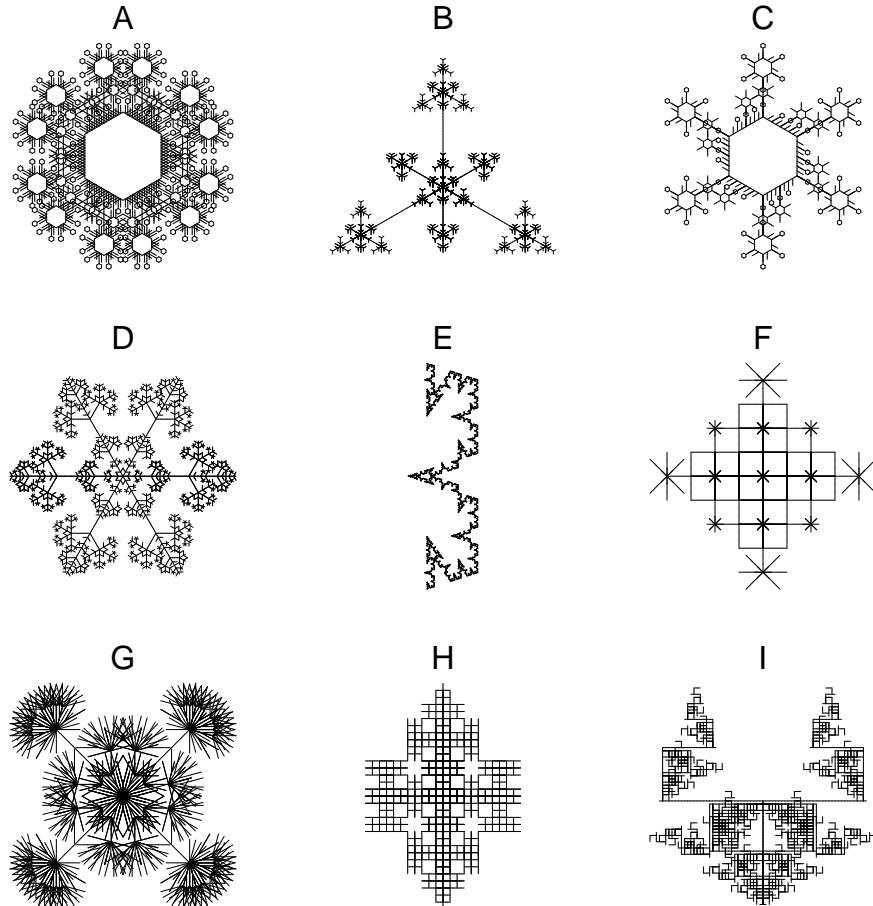
ET_1021 version 13

Consider the L-system (and angle) defined below:

- Start: [A] ----- [A]
- Rules:
 - A > [---BC] [++BC]
 - B > [--AC] [+AC]
 - C > F [-BA] [+BA]
 - F > FF
- Number of recursions (number of iterations): 5
- Angle: 15°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



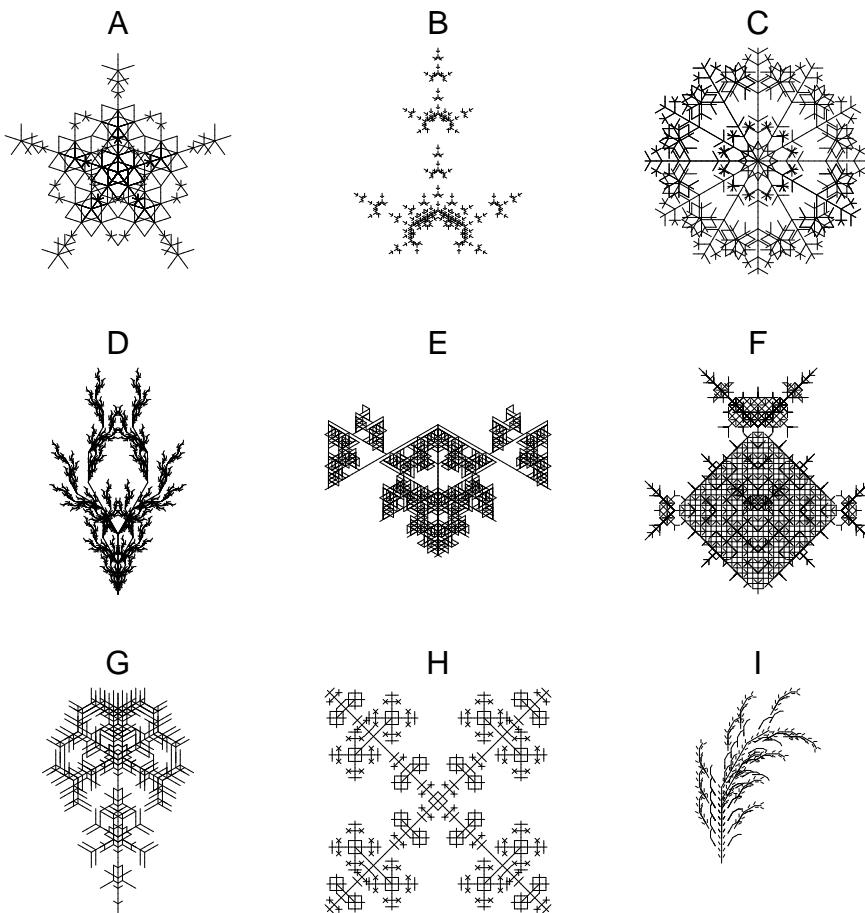
Which pattern is created?

Consider the *L*-system (and angle) defined below:

- Start: A
- Rules:
 - A > [-AAB] [--AAB] [+AAB] [++AAB] AAB
 - B > [-C] [+C] [--C] [++C] CA
 - C > CC
- Number of recursions (number of iterations): 3
- Angle: 72°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Name: _____

ET_1021 version 14

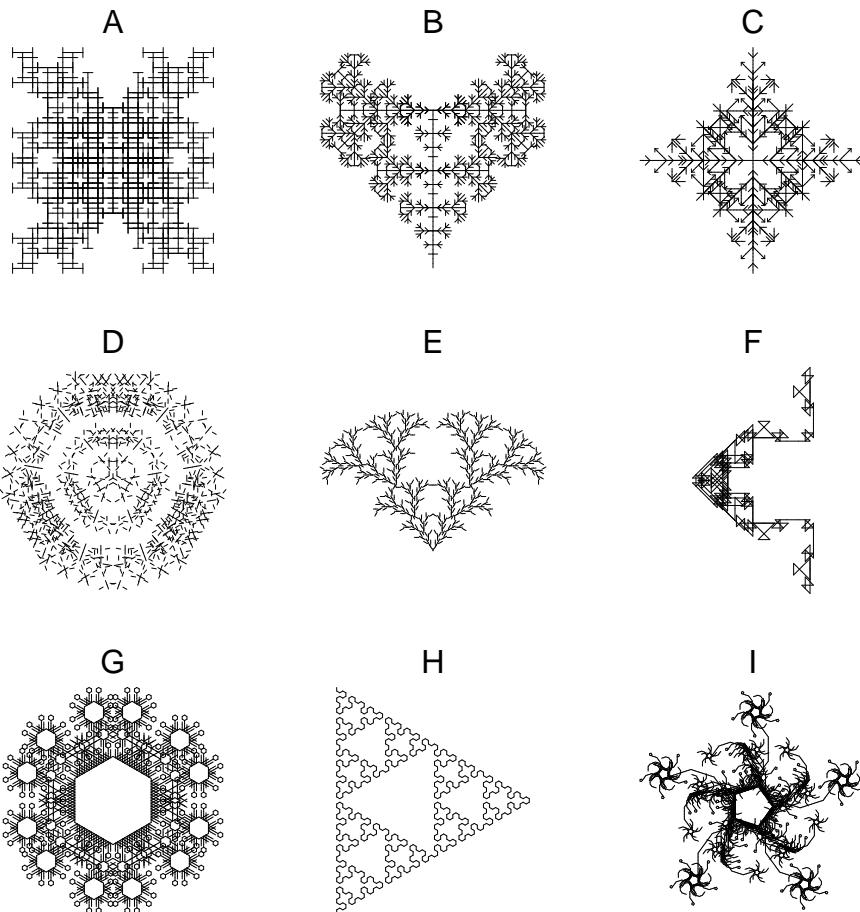
Consider the L-system (and angle) defined below:

- Start: A
- Rules:
 $A > B-ABA-B$
 $B > A+B+A$

- Number of recursions (number of iterations): 4
- Angle: 135°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



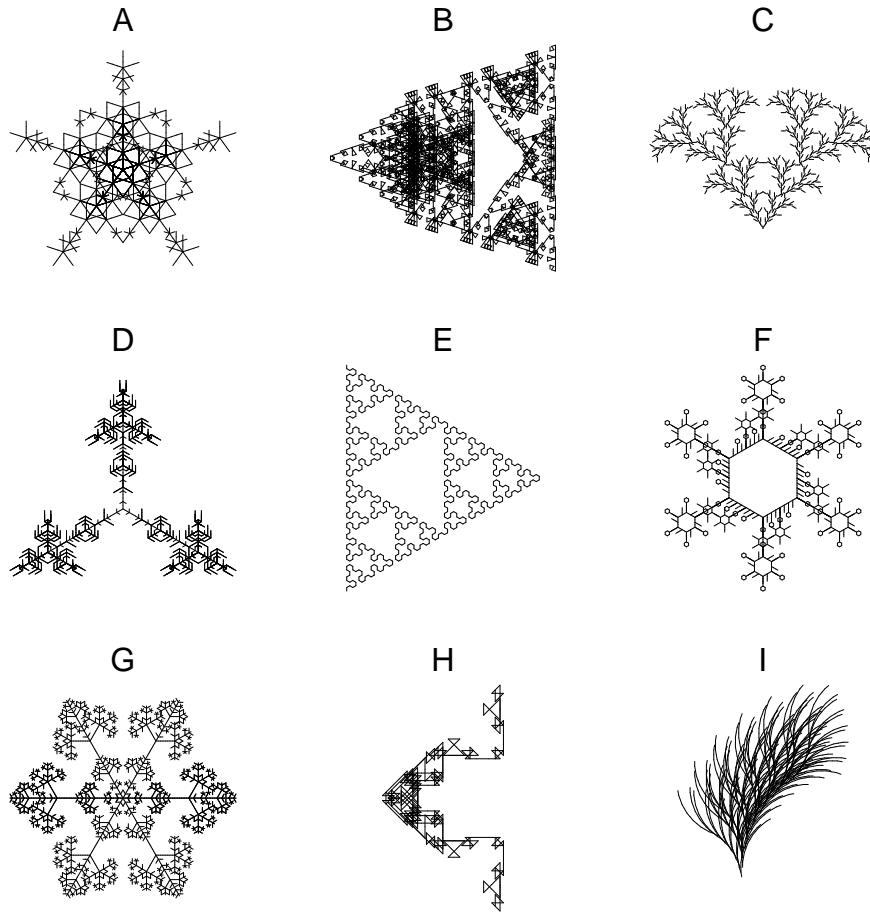
Which pattern is created?

Consider the *L*-system (and angle) defined below:

- Start: A
- Rules:
 - A > B-A-B
 - B > A+B+A
- Number of recursions (number of iterations): 6
- Angle: 60°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Name: _____

ET_1021 version 15

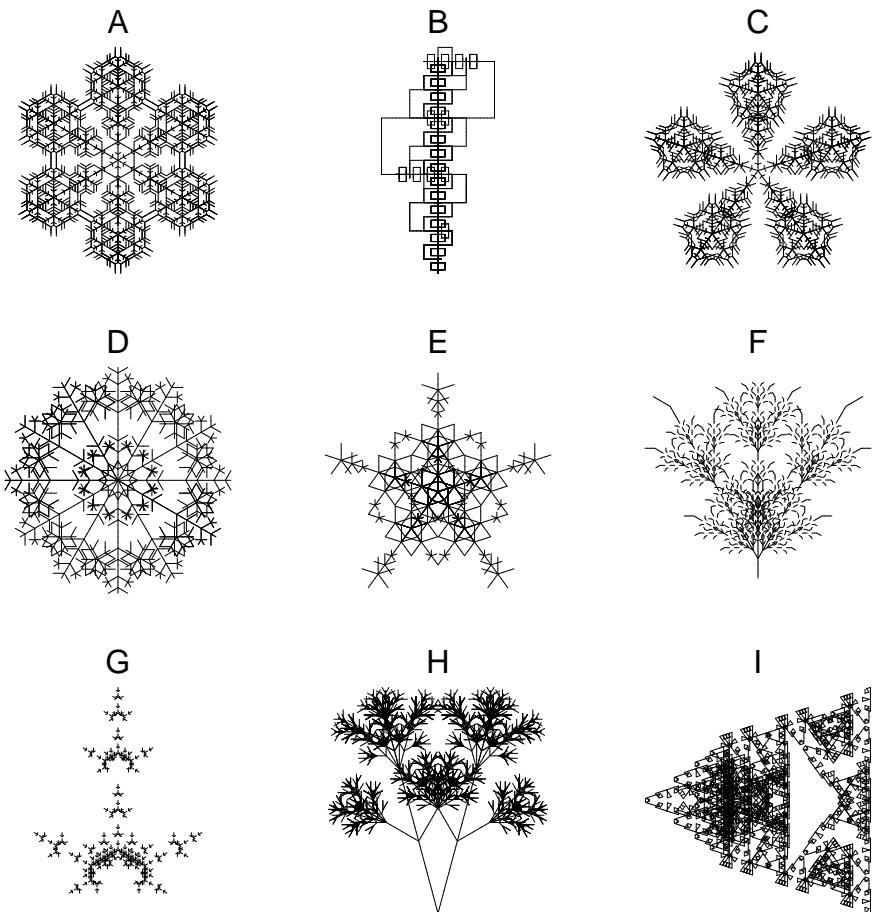
Consider the *L*-system (and angle) defined below:

- Start: A
- Rules:
 - A > [-AAB] [--AAB] [+AAB] [++AAB] AAB
 - B > [-C] [+C] [--C] [++C] CA
 - C > CC

- Number of recursions (number of iterations): 3
- Angle: 72°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



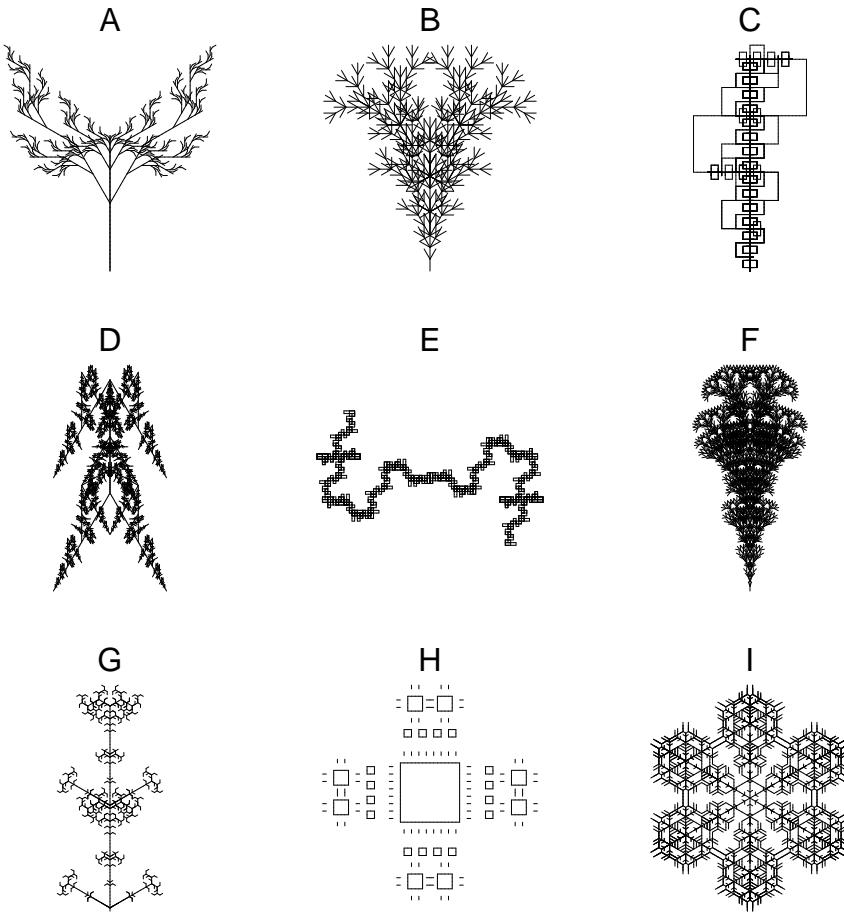
Which pattern is created?

Consider the *L*-system (and angle) defined below:

- Start: A
- Rules:
 $A > A [+A] [-A] A [+B] [-B]$
 $B > A [--B] [++B] B$
- Number of recursions (number of iterations): 5
- Angle: 20°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Name: _____

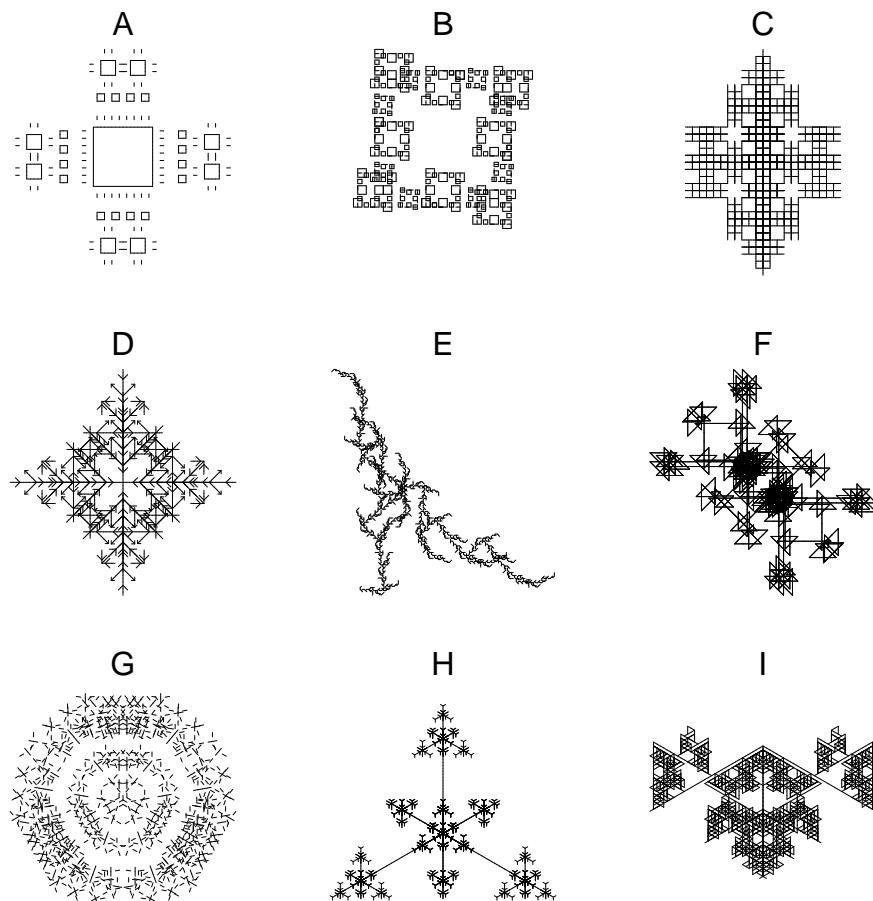
ET_1021 version 16

Consider the *L*-system (and angle) defined below:

- Start: A++A++A++A
- Rules:
 - A > B-CAC-B
 - B > AB-BA
 - C > CC
- Number of recursions (number of iterations): 5
- Angle: 135°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



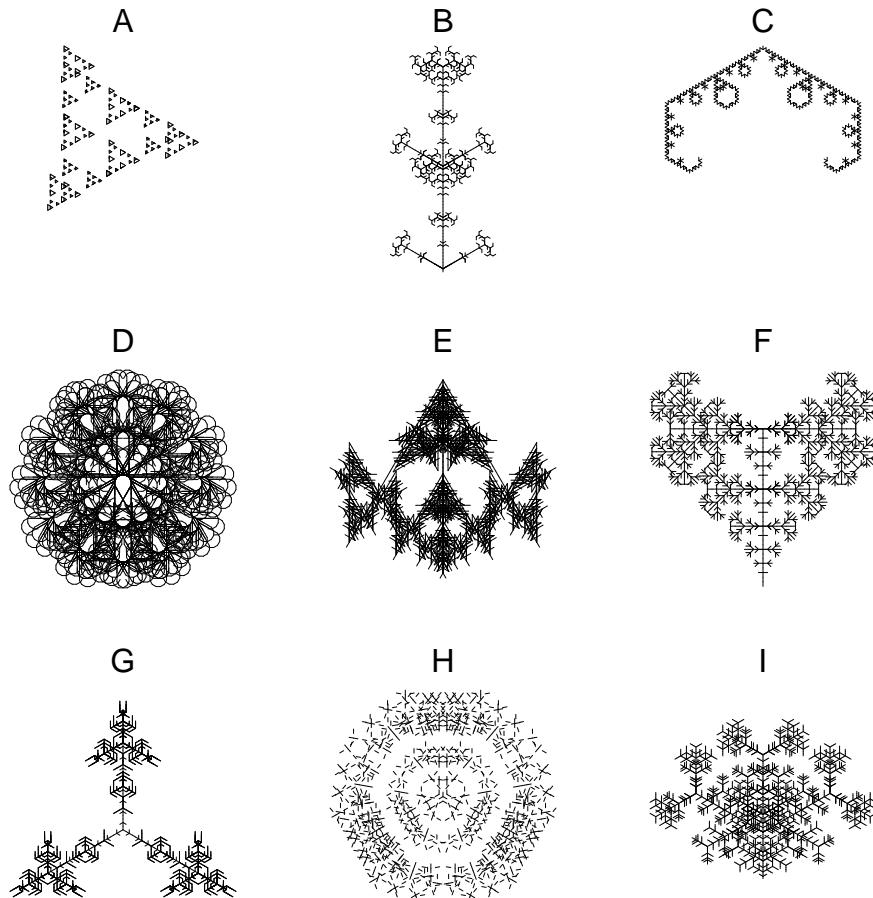
Which pattern is created?

Consider the *L*-system (and angle) defined below:

- Start: [A]+++[A]+++[A]
- Rules:
 - A > A [---XB] [-XB] [+XB] [+++XB]
 - B > XB [++XA] [--XA] A
 - X > XX
- Number of recursions (number of iterations): 4
- Angle: 40°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Name: _____

ET_1021 version 17

Consider the L-system (and angle) defined below:

- Start: A

- Rules:

$$A > -B+B+B+B+B+B$$

$$B > BB[-CCA]$$

$$C > CC$$

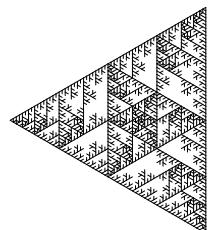
- Number of recursions (number of iterations): 5

- Angle: 60°

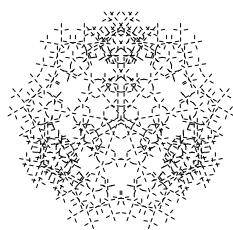
Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>

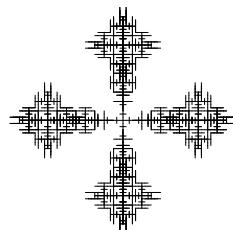
A



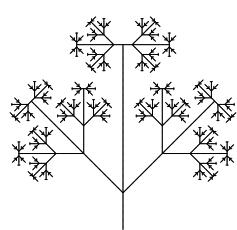
B



C



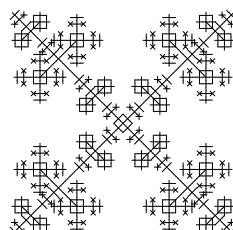
D



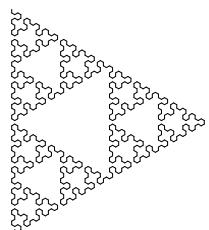
E



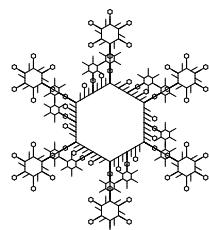
F



G



H



I



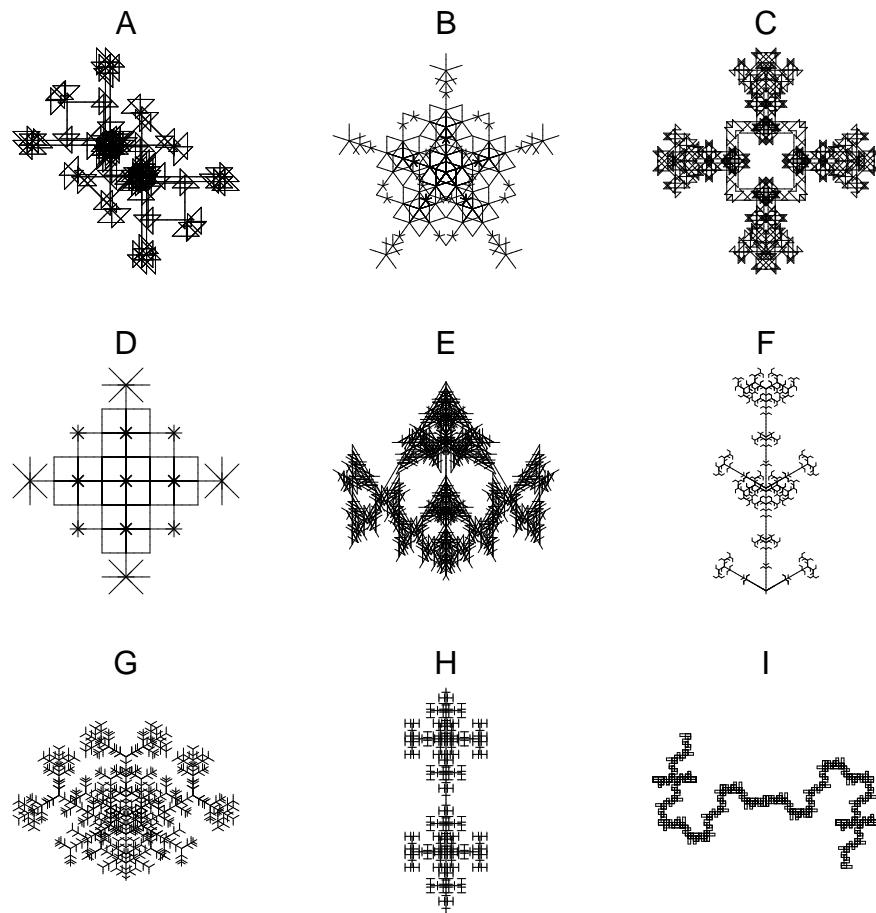
Which pattern is created?

Consider the *L*-system (and angle) defined below:

- Start: AA
- Rules:
 - A > ABA
 - B > C[-BAB] [+BAB]
 - C > CC
- Number of recursions (number of iterations): 5
- Angle: 90°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Name: _____

ET_1021 version 18

Consider the L-system (and angle) defined below:

- Start: [+A] [-B]

- Rules:

$$A > [-CA-CB]A$$

$$B > [+CB+CA]B$$

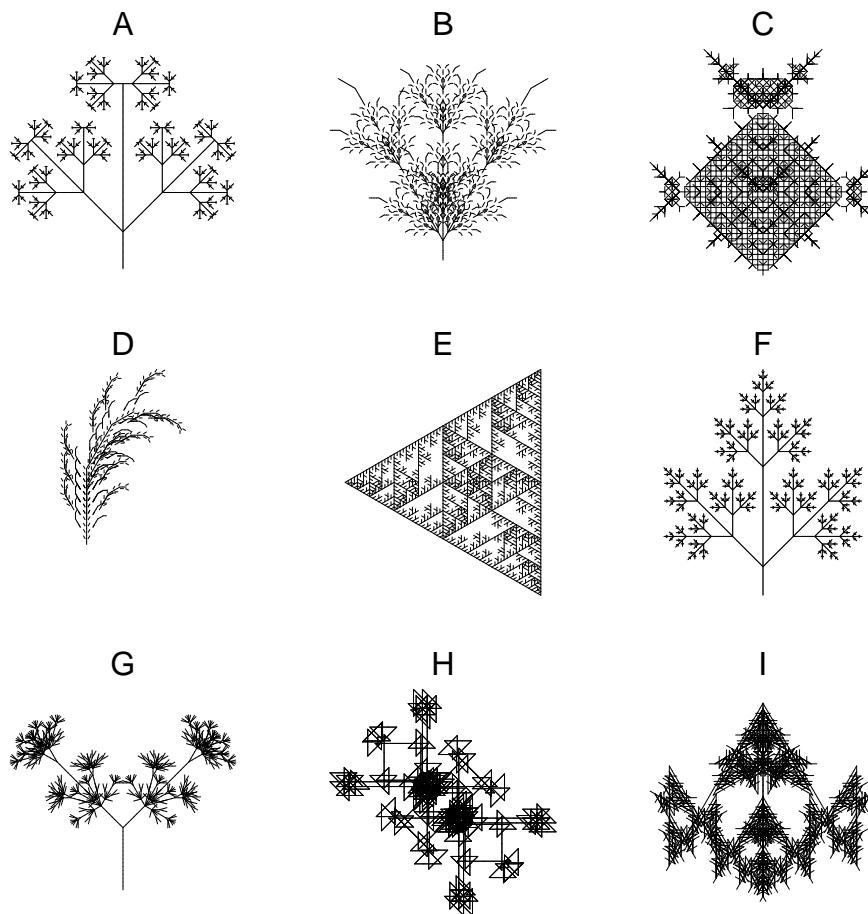
$$C > CC$$

- Number of recursions (number of iterations): 6

- Angle: 150°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

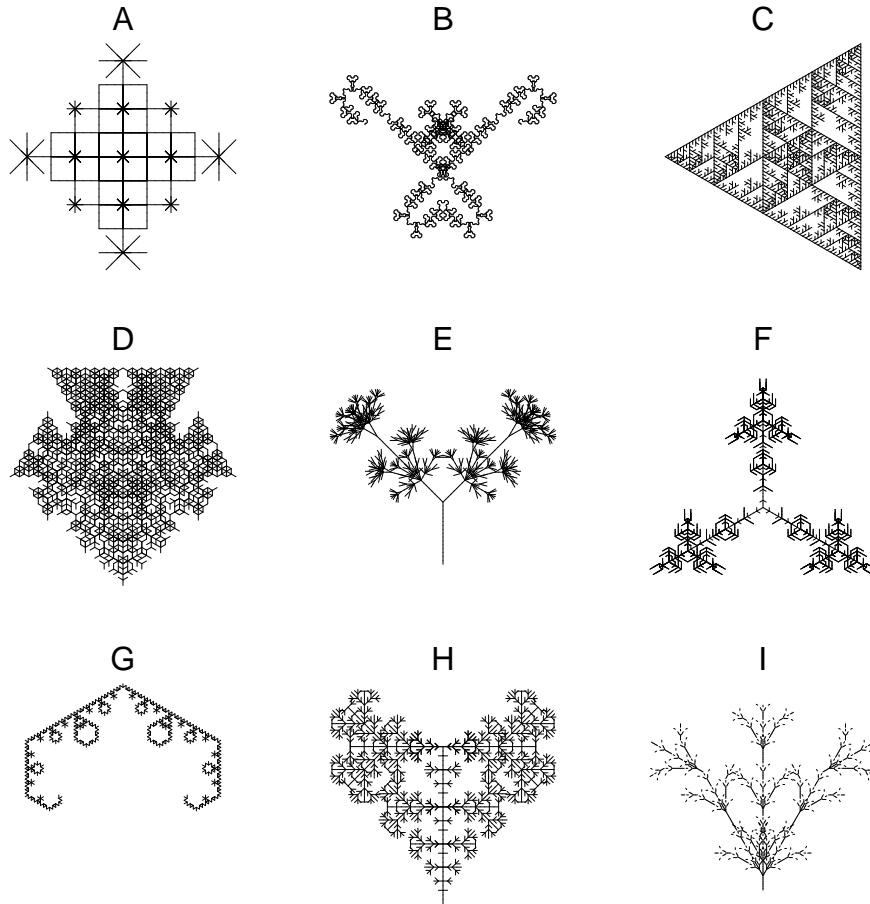
Consider the *L*-system (and angle) defined below:

- Start: GA
- Rules:
 - A > [---BC] [++BC]
 - B > F [--AC] [++AC]
 - C > FF [-BA] [+BA]
 - F > FF
 - G > F

- Number of recursions (number of iterations): 5
- Angle: 15°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Name: _____

ET_1021 version 19

Consider the L-system (and angle) defined below:

- Start: [+A] [-B]

- Rules:

A > [-CA-CB]A

B > [+CB+CA]B

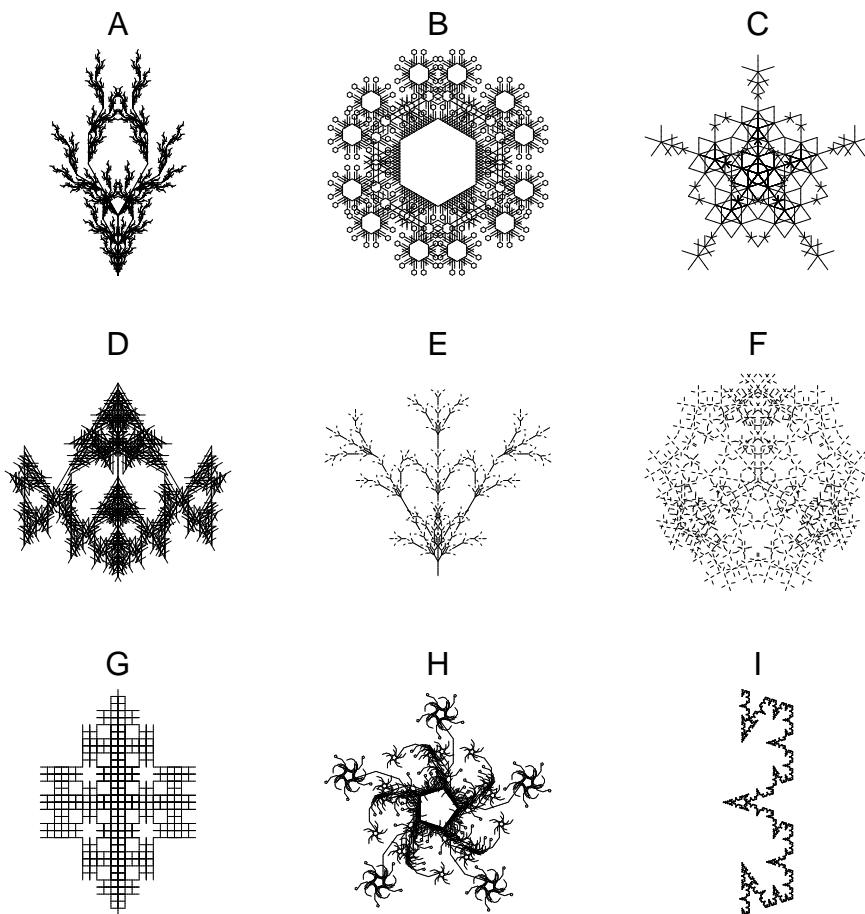
C > CC

- Number of recursions (number of iterations): 6

- Angle: 150°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



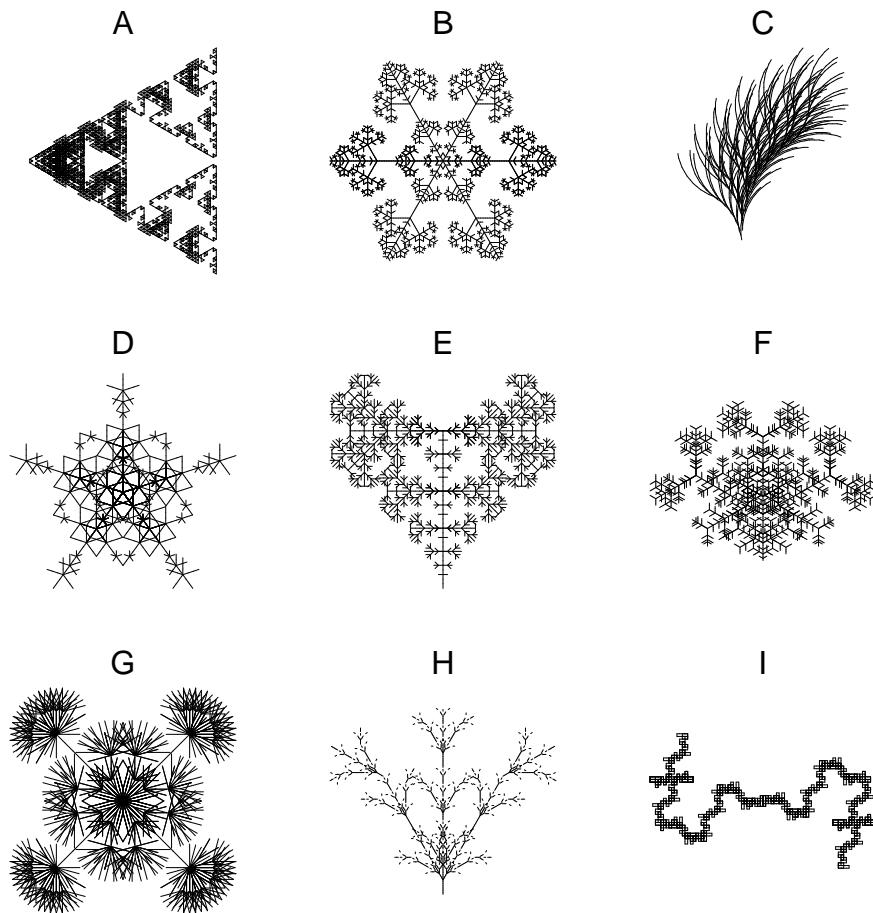
Which pattern is created?

Consider the *L*-system (and angle) defined below:

- Start: A
- Rules:
 - A > [-AAB] [--AAB] [+AAB] [++AAB] AAB
 - B > [-C] [+C] [--C] [++C] CA
 - C > CC
- Number of recursions (number of iterations): 3
- Angle: 72°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Name: _____

ET_1021 version 20

Consider the *L*-system (and angle) defined below:

- Start: A

- Rules:

$$A > XX[B+BB+BB+BB+B]$$

$$X > XX$$

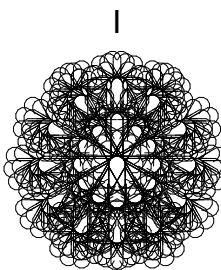
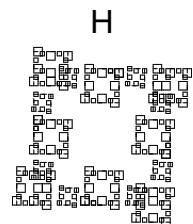
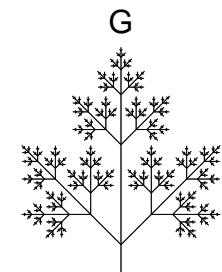
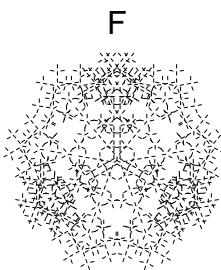
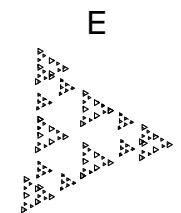
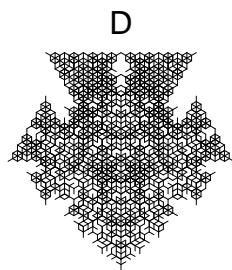
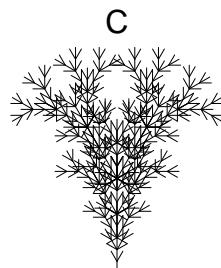
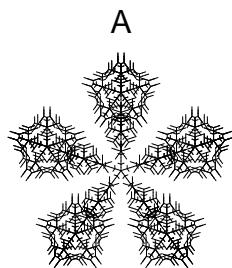
$$B > BA$$

- Number of recursions (number of iterations): 6

- Angle: 90°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?

Consider the *L*-system (and angle) defined below:

- Start: [A]+[A]+[A]+[A]+[A]+[A]

- Rules:

$$A > AA[-B][+B]B$$

$$B > [-ABC][+ABC]$$

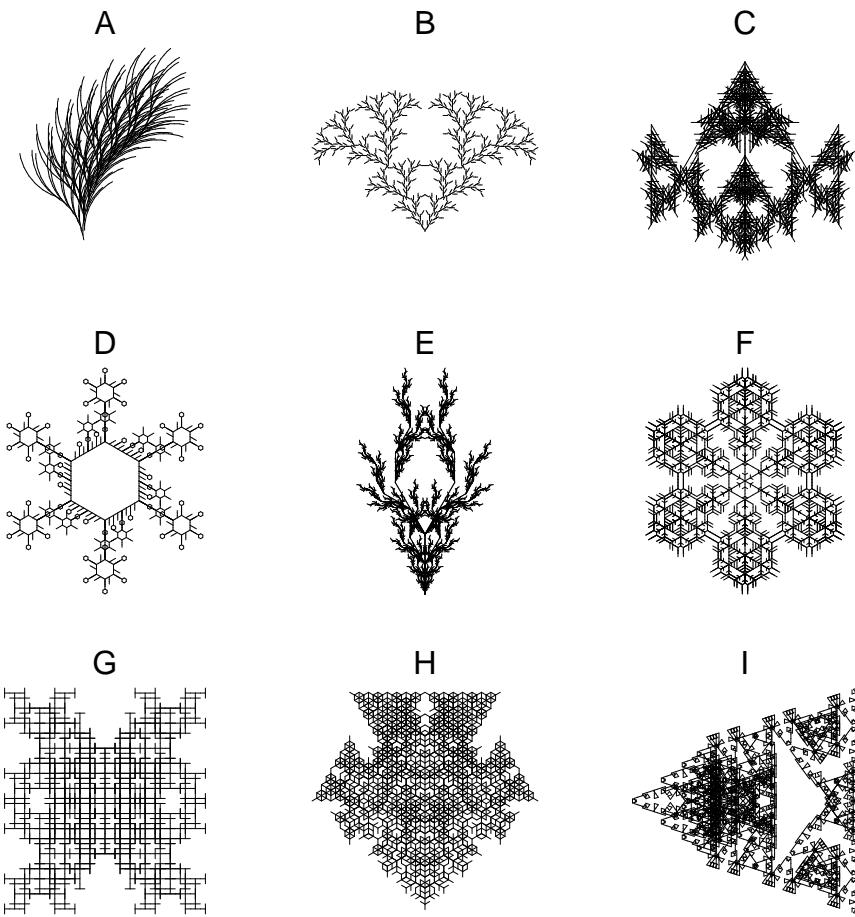
$$C > A[-CB][+CB]$$

- Number of recursions (number of iterations): 4

- Angle: 60°

Use the following sites to generate the pattern:

- https://chadworley.github.io/Lsys_string_gen.html
- <https://scratch.mit.edu/projects/1225522722/editor/>



Which pattern is created?